

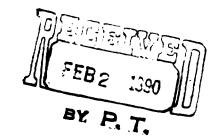
Illinois Environmental Protection Agency

P. O. Box 19276. Springfield, IL 62794-9275

217/782-6760

L1630200005 - St. Clair County Sauget Sites (Area I) - Sauget Superfund/Technical

January 30, 1990



Raymond J. Avendt, Ph.D., P.E. President The Avendt Group, Inc. 432 North Saginaw Street - 3RD Floor Flint, Michigan 48502

Dear Dr. Avendt:

The Illinois Environmental Protection Agency and the Illinois Attorney General's Office have reviewed the "Status Report - Dead Creek Sector A Site Investigation" and find the data presented to be acceptable for inclusion in a final report characterizing this site. In reference to Cerro Copper's request for the State to provide guidance in the preparation of this report, I have enclosed an outline for the "Site Investigation/Remedial Alternatives Evaluation for Creek Segment A".

The outline is designed to provide to the State with what would be equivalent to an RI/FS for an immediate removal. In light of all site work already performed by Ecology & Environment, Inc., and the Avendt Group, a formal RI/ES would not be necessary.

At our meeting on January 16, 1990, it was stated that Cerro intends to begin remediation after the stormwater retention facility is completed on May 7 of this year. In order to accommodate this request, a finalized report would have to be approved by the State before May 7. Work on a consent decree for Creek Segment A would begin pending submittal of your draft report. With relative timeframes that are involved with this project, I have proposed the following schedule:

| Submittal | Submittal Date |
|---|----------------|
| Draft Site Investigation/Remedial Alternatives Evaluation | 3/19/90 |
| State Comments to Cerro | 4/2/90 |
| Final Report | 4/24/99 |



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If you have any questions regarding this schedule or the content of your report, please feel free to contact me at the above number.

Paul E. Takacs, Project Manager

Federal Site Management Unit

Remedial Project Management Section Division of Land Pollution Control

PET:jab/348n/44-45

Enclosures

cc: Terry Ayers Bill Child Delbert Haschemeyer Ken Mensing Bruce Carlson Jim Morgan Christine Zeman Michael Rodburg Paul Tandler Carl Schafer



SITE INVESTIGATION/REMEDIAL ALTERNATIVES EVALUATION FOR CREEK SEGMENT A CERRO COPPER PRODUCTS SAUGET. ILL INDIS

1.0 Study Objectives

- 2.0 Site Characterization
- 2.1 Site Location
- 2.2 Operational History
- 2.2.1 Site Ownership (past and present)
- 2.3.1 Description and Past Uses (historical evaluation)
- 2.3.1.1 Industrial Discharges
- 2.3.2 Description of Current Uses
- 2.3.2.1 Utilization for Stormwater Retention
- 2.3.2.2 Temporary Recharge Basin for Dewatering Operations
- 2.4 Access Restrictions
 - 2.4.1 Cerro Property
 - 2.4.2 Creek Segment A Boundary
- 2.5 Current Surrounding Land Use
 - 2.5.1 Industrial Characterization
 - 2.5.2 Residential Population
- 2.6 Groundwater Usage (past and present)
- 2.7 Site Topography
- 3.0 Site Investigation
- 3.1 Previous Work (E&E Investigation)
- 3.1.1 Findings
- 3.1.2 Conclusions
- 3.2 Work Performed by Patterson Schafer Inc.
- 3.2.1 Objectives
- 3.2.2 Description
- 3.3 Work Performed by Avendt Group
 - 3.3.1 Objectives
 - 3.3.2 Health and Safety Considerations
 - 3.3.3 Sampling Rationale
 - 3.3.4 Geotechnical Characterization
 - 3.3.4.1 Description of Sediment Sampling Events
 - 3.3.4.2 Physical Description of Lithologies Encountered in Boreholes
- 3.3.5 Criteria Utilized in Determining Extent of Contamination 3.3.6 Transverse/Zone Diagrams (indicate A,B,C,D series on map)
- 3.3.7 Boring Log Data and Explanation
- 3.3.7.1 Transverse Sections
- 3.3.7.2 Longitudinal Sections
- 3.3.7.3 Sediment Volume Determinations



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- 4.0 Chemical Characterization
- 4.1 Sample Testing Summary and Explanation
- 4.2 PCB/Biphenyl Analysis
- 4.2.1 Test Methods Utilized
- 4.2.2 Table of Results
- 4.2.3 Contour Maps PCB/Biphenyls
- 4.3 EPTox Data
 - 4.3.1 Test Methods Utilized
 - 4.3.2 Table of Results
- 4.3.3 Contour Maps EPTox
- 4.4 Total Metals
- 4.4.1 Test Results
- 4.4.2 Table of Results
- 4.4.3 Contour Maps Total Metals
- 4.5 Hazardous Waste Characterization
- 5.0 Conclusions Avendt Work
- 5.1 Site Investigation
- 5.2 Chemical Characterization
 - 5.1.1 Manufacturing Processes involved in PCB Synthesis
 - 5.1.2 Indications of Biphenyls present with PCBs
 - 5.1.3 Contour Map Extent of Contamination
- 5.3 Source Identification
- 6.0 Remedial Action Alternatives Evaluations
- 6.1 Remedial Action Objectives
- 6.2 Identification of Remedial Action Alternatives
- 6.3 Screening of Remedial Action Alternatives/Comparative Analysis
- 6.3.1 Protection of Human Health and Environment
- 6.3.2 Compliance with State ARARs (to be announced)
- 6.3.3 Long Term Effectiveness and Permanence
- 6.3.4 Reduction of Toxicity and Contaminant Mobility
- 6.3.5 Impact on Regional Groundwater Quality
- 6.3.6 Technical Implementability
- 7.0 Recommended Remedial Action Alternative

PT:jab/348n/46-47